

CLAIMS

1. A separator for an electric double layer capacitor, characterized in that a thickness of the entire separator is 25 μm or less, a layer of an ultrafine fibrous aggregate prepared by an electrostatic spinning process is contained, an average fiber diameter of ultrafine fibers constituting said ultrafine fibrous aggregate layer is 1 μm or less, and a maximum pore size of said ultrafine fibrous aggregate is not more than 3 times a mean flow pore size.
2. The separator for an electric double layer capacitor according to claim 1, characterized in that a thickness of the entire separator is 20 μm or less.
3. The separator for an electric double layer capacitor according to claim 1 or 2, characterized in that said mean flow pore size of said ultrafine fibrous aggregate layer is 1 μm or less.
4. The separator for an electric double layer capacitor according to any one of claims 1 to 3, characterized in that a ratio (Dd/Da) of a standard deviation (Dd) of fiber diameters of ultrafine fibers constituting said ultrafine fibrous aggregate layer to an average fiber diameter (Da) of ultrafine fibers constituting said ultrafine fibrous aggregate layer is 0.25 or less.
5. The separator for an electric double layer capacitor according to any one of claims 1 to 4, characterized in that said ultrafine fiber is composed of at least one resin selected from the group consisting of polyacrylonitrile, polyvinylidene fluoride, polyimide, nylon, polystyrene, polyethylene glycol, polyvinyl alcohol, and polyvinyl pyrrolidone.
6. The separator for an electric double layer capacitor according to any one of claims 1 to 5, characterized by further containing a non-ultrafine fibrous aggregate layer having an average fiber diameter of not less than 1 μm , in addition to said ultrafine fibrous aggregate layer.
7. The separator for an electric double layer capacitor according to any one of claims 1 to 6, characterized in that a porosity of said separator is 50% to 95%.

8. The separator for an electric double layer capacitor according to any one of claims 1 to 7, characterized in that a tensile strength per 1 g/m² in mass per unit area is 0.15 N/5 mm width or more in at least one direction of said separator.

9. An electric double layer capacitor comprising said separator according to any one of claims 1 to 8.